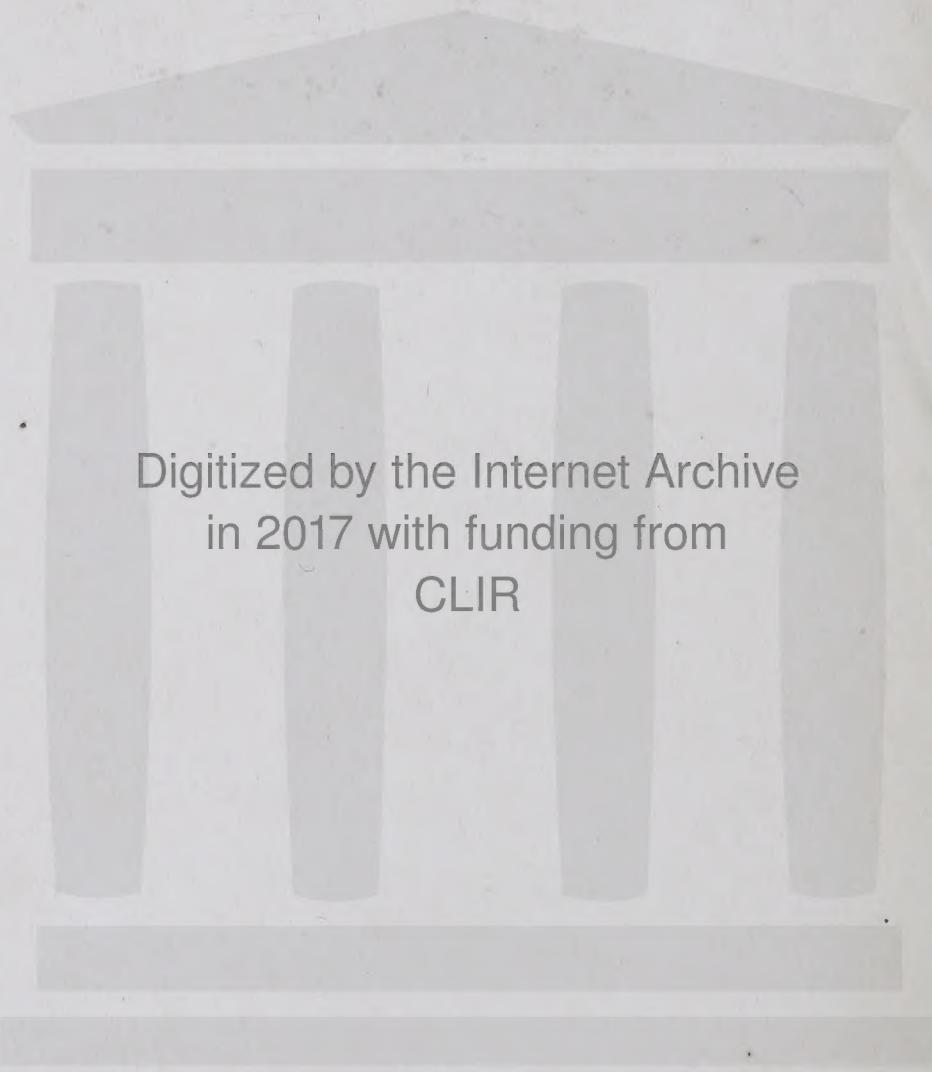


Oenomyctis = Q.



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Bees. 1900

April 1900 to March 1901

Started with 8 colonies
April, 1900.

33 Swarms

Trees cut 1900 21

Bees given to us 8

Found swarms 4

Ended Honey Season of
1900 Feb 28th 1901

with 69 Colonies of Bees.

Total Colonies for 1900 34
United weak ones 5
Total at end of 1900 69
Honey season Feb 28, 1901
69 colonies.

Drained Honey season 1900

1125 lbs.

1133 #1 Sections, @ 14 oz each 991 "

444 #2 " @ 12 oz each 333

Grand Total of 2449 lbs.

Season of 1900. April ¹⁹⁰⁰ to March ¹⁹⁰¹

- | No. | Date hived, April 20 1899 | |
|-----|--|--|
| 0 | Gave 93 No 1 sections & 16 No 2 sections. Also 10 $\frac{1}{4}$ lbs extracted honey. | |
| 1 | Late hived Mar 6, 1899
Gave 30 No 1 sections & 19 No 2 sections, also 8 $\frac{1}{4}$ lbs of extra extracted honey. Swarmed 2 times | |
| 2 | Oct 11 1899. Gave 42 No 1 sections & 20 No 2 sections; also 8 $\frac{1}{4}$ lbs. of extracted honey. Swarmed 1 time. | |
| 3 | April 13 1900. Gave 20 No 1 sections & 19 No 2 sections, also 16 $\frac{1}{4}$ lbs of extracted honey. Swarmed 1 time | |

- No.
hives
- 4 April 9 1900. Gave 8 No sections
& 12 No 2 sections also 19 lbs
of honey. Swarmed 2 times.
- 5 June 1 1900 Gave 8 No
sections & 10 No 2 sections
also 18 lbs of extracted
honey. Swarmed 1 time
Swarm from #1 at 10 A.M.
- 6 April 30 1900 at 9:30 A.M.
Divided swarm from #41
Gave 33 No 1 sections & 15 No
2 sect. also 18 $\frac{1}{2}$ lbs of honey
Swarmed 1 time.
- 7 June 22 1900 at 1.30 P.M.
Swarm from #13. Gave 1
No 1 & 2 No 2 sections also
20 $\frac{3}{4}$ lbs of honey
- Swarmed 1 time.

- 8 Aug. 5 1900. Swarm from
#25 at 1.15 P.M. Gave 11
No 1 sect. & 3 No 2 sections.
also 18 $\frac{1}{4}$ lbs of honey.
- 9 Aug. 27 1900. Gave 9 $\frac{1}{2}$ lbs
of honey. Swarmed 1 time
- 10 Sept 8 1900. Swarm from
#36 at 11.45 A.M. Gave 4
No 2 sect. And 20 $\frac{1}{2}$ lbs of
honey.
- 11 May 19 1900 Gave 21 No 1
sect & 25 No 2 sections,
also 12 $\frac{1}{4}$ lbs of honey.
- 12 Nov 6 1899 Gave 40 No 1
& 11 No 2 sections, also 10 $\frac{1}{2}$
lbs of honey. Swarmed 1
time

- 13 April 5 1900 Gave 12 No 1 & 5
No. 2 sections, also $18\frac{1}{2}$ lbs of
honey. Swarmed 1 time.
- 14 June 5 1900. Swarm from
#40 at 10 A.M. Gave 9 No 1
& 14 No 2 sections, also $22\frac{1}{4}$
lb of honey. Swarmed
time.
- 15 June 11 1900. Swarm from
#22 at 11 A.M. Gave 9 No 1
& 13 No 2 sections, also $22\frac{1}{4}$
lbs of honey. Swarmed
1 time.
- 16 June 23 1900. Gave $5\frac{1}{4}$ lbs
of extracted honey.
- 17 Aug 29 1900. Gave 18 lbs
of honey.
- 18 Aug 31 1900 Gave $6\frac{3}{4}$ lbs
of honey.

- 19 Empty 1900
- 20 May 18 1900. Swarm from
#12 at 12 $\frac{1}{2}$ h. Gave 104 No 1
82 No 2 sections also 15 $\frac{3}{4}$
lbs of honey. Swarmed
1 time.
- 21 Jan. 11 1899 Gave 54 No 1
81 No 2 sections also 23 $\frac{3}{4}$
lbs of honey. Swarmed
1 time
- 22 Apr. 11 1900 Gave 34 No 1
83 No 2 sections. also 5
lbs of honey. Swarmed
1 time.
- 23 May 20 1900. Swarm from
#31 at 10.47 m. Gave 24 No 1
814 No 2 sections also 18 $\frac{3}{7}$
lbs of honey. Swarmed
1 time.

- 24 June 7 1900. Gave 30 $\frac{3}{4}$ lbs &
also 24 $\frac{3}{4}$ lbs of honey
- 25 April 27 1900. Gave 30 $\frac{3}{4}$ lbs &
1 $\frac{1}{2}$ lbs actions also 18 $\frac{1}{2}$
lbs of honey. Swarmed 1
time.
- 26 July 3 1900. Swarm in
#3 at 1.45 P.M. gave 31 $\frac{1}{2}$ lbs &
also 24 $\frac{3}{4}$ lbs of no.
- 27 July 11 1900. gave 4 lbs & 6
no 2 actions, also 24 lbs of
honey. Swarmed 1 time.
- 28 July 1 1900. gave 28 lbs &
5 no 2 actions, also 28 lbs
of honey.
- 29 Aug 28 1900. I came from
#27 at 11 A.M. gave 3 lbs &
2 1/2 no 2 actions also 18 lbs
of honey.

- 30 May 28 1900 Gave 33 No 1
8 13 No 2 sections also 24 $\frac{1}{2}$
lbs. of honey. Swarmed
1 time
- 31 June 10 1899 Gave 1 No 1
also 9 $\frac{3}{4}$ lbs of nectar.
Swarmed 1 time.
- 32 April 9 1900. Gave 19 No 1
8 & 9 No. sections, also 6 $\frac{3}{4}$
& 1 lb of nectar. Swarmed 3
times & the last time be-
came queen less & emitted
them with 8. Dec. 15 1910
32.
2nd Put a hive of bees on stand
Dec 26th 1900. And got 48
hives out of it by the time
from which - the came.

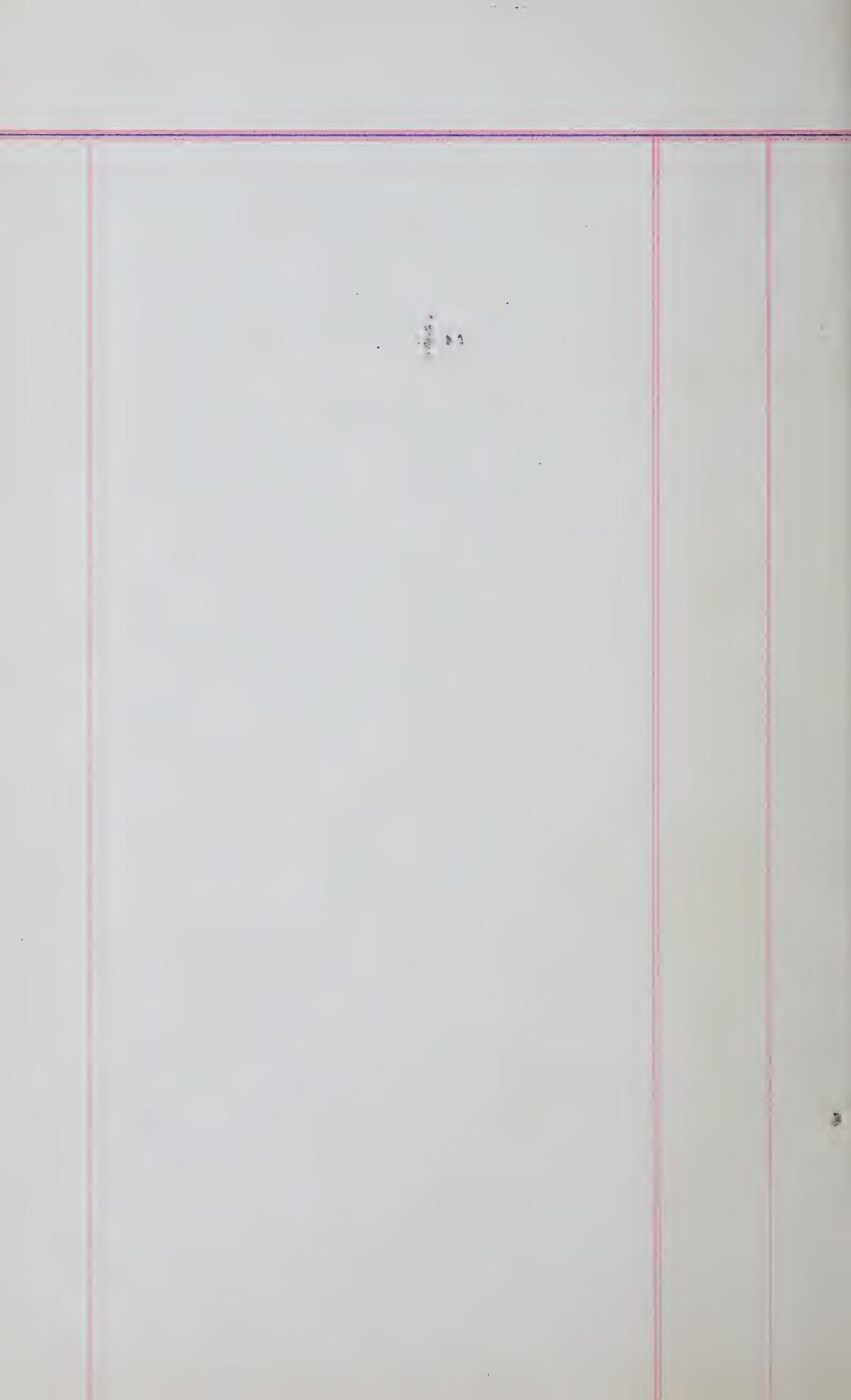
Mr. Devi W. Mengel,
Dept. Biology,
Boys High School.
Reading. Pa.

wants specimens of diurnal lepidoptera
and Pyraunes Tannmeacea, cash and
any species of colias you may have.
Will pay cash or exchange specimens
from Europe, U.S. ~~Canada~~, and Central
and South America.

Dec 13. 1913,

- 38 July 2 1910. Came in at 23
at 10.45 A.M. Gave 1³/₄ section
of 8 lbs of honey. Swarmed 1
time.
- 39 July 1, 1910. Gave 7, no 189
9 sections, also 15¹/₂ lbs of
honey.
- 40 Sept. 3 1899. Ave 18 No.
24 No. 2 ions, also 23¹/₄ lbs
of honey. Swarmed 1 time.
- 41 Aug. 6 1891. I am from
#21 at 2 P.M. Ave 54 No.
21 no 1 section, also 26 lbs of
honey. Swarmed 2 times.
- 42 May 2 1920. 7 1/2 lbs of
honey.
- 43 June 2 190. I am from #2 at
10.30 A.M. Gave 44 No 18 21
No 2 sections, also 25¹/₄ lbs of
honey.

- 44 June 1900 - I arm from
#6 at 1.3 P.M. gave 5.11
lbs - 22 $\frac{1}{4}$ U. of honey.
- 45 Sept 1900 - I arm from
#34 at 11.4 M. gave 26 lbs
of honey.
- 46 Sept 1900 - I arm from
#41 at 1.45 P.M. gave 17 lbs
8 oz no chow, also 21 $\frac{3}{4}$ lbs
of honey.
- 47 Sept 1900 - I arm from
#15 at 1.55 P.M. gave 2 lbs
8 oz no chow, also 11 $\frac{1}{2}$ lbs
of honey.



Phaeornis obscurus. Hawaii No 1
Omao

Known as the Whistlingbird or Thrush.

Color gray brown. Length 7 inches. Was in full song when shot. Found in #4 field, Horner's Ranch. Time about 11 A.M. July 3, 1903. Breeding, as Omao large male. Elevation about 900 feet.

Order Passeres - Paching Birds

Family, Turdidae - Thrushes etc.

Genus - Phaeornis

Phaeornis obscurus. Hawaii. No. 2.
Native name - O man.

Color - gray brown. Length 7 inches. Was in full song when shot. Found in #3 field Hamer's Ranch. Time, 10.30 A.M. July 3, 1903. Moulting, not breeding, ovaries very small. Male. Elevation about 1950 feet.

Chlorodrepanis Virens

Hawaii

No. 3.

Native Name - Amakihi

Color. Olive green to bright yellow-green. Curved bill. Black face. Was in full song when shot. Found in #3 field, Bonne Bande, near old ranch road. Adult male, almost in perfect plumage. Length 4.5 inches. Food at this time of the year - green or the army worm.
Elevation 2000 feet.

Phasianus obscurus.

Hawaii

No. 4.

Native name - O may.

Color, gray brown. Length 7.1 inches. Was in full song when shot. Found in coffee field, near Hamakua gulch, Horner's Ranch. Date July 3, 1903. Female, not breeding. Elevation about 3,500 feet.

Chlorodrepanis Virens

Hawaii

No. 5.

Native Name - Amakihi.

Color, pale yellow-green. Length 4.25 inches. Curved bill, $\frac{1}{2}$ inch long. Found in # 4 field, Horner's Ranch, July 3, 1903. Not breeding. Female. Food at this time of the year - green or the Armyworm. Elevation about 1900 feet.

Himatione sanguinea Hawaii No 6
native name - Afahane

Color, red and black, with black feet, legs and bill.
length 5.375 inches. Found above stone fence, 9,000 feet
Homes Ranch, Dec. 26. 1902. Male.

Phasenopsis sandvicensis Hawaii

native name - Elepaio.

No).

Color, brown and white. Length 5.50 inches. Moulting.
Found in # 4 field Horner's Ranch, July 3. 1903. Was in full
song when shot. Young female, not breeding. Elevation
about 2250 feet. X

No. 8. Lemmiscus Danversis
native name. Elipao

Hawaii

color, brown on back, dark brown on sides, white on
the breast. Length 5.3 inches. Found along upper fence
coffee field, Horner's Ranch. Elevation about 4000 feet.

Female, about 1/2 years old. Ovaries small, not budding.

X

Glaucopsyche Samicensis Hawaii

No 9.

Native name. Elepaio

Color,

length 6.2 inches. Found in upper part of
the lower end of Cornfield, Harris Ranch
Hamakua, Hawaii at 4000 foot elevation on
July 24. 1903 Adult female, breeding. Ovaries very
large, and some eggs almost fully developed.
Food, moths, worms, flies etc. X

No 10. Phaeornis obscurus.

Hawaii

Native name - Omau

or Thrush.

Color, gray brown, length 7.6 inches Found
December 31, 1902. above Paauilo Homesteads, Ham-
akua, Hawaii. Male. Collected on Horner Ranch.
Elevation 3500 feet.

Chlorodrepanis Virens

Hawaii

No. 11.

Native Name - Amakihi.

Color, light yellow-green. Curved bill. Length 4.3 inches. Found along upper fence of coffee field, Konaie Ranch, July 4, 1903, at 4.30 P.M. Adult female, not breeding. Elevation about 4000 fut.

No. 12. Chlorodrepanis Virens Hawaii

Native name - Amakihi.

Color, bright yellow and dark green. Length
inches. Found in center of coffee field, Horner's Ranch
July 4, 1903, at 5 P. M. Elevation 3750 feet. Food - green
caterpillar or army worms. Adult male, almost
perfect plumage. Was in full song when shot.

Carpodacus

Hawaii

No. 13.

(Now you are back)

Length 5.75 inches, Wing 3.13 inches, Tail 4.6 in.
Tarsus .70 inches, Toe .66 inches, Culmen .45 inches
Depth of neck 3.6 inches, Distance from tip of wing to
tip of tail, 5.0 inches.

Hawaii

No. 14. Chlorodrepanis Virens
Native Name - Amakihi

Color, olive green yellow. Length 4.65 inches. Found
above Paauilo Ranch roads, Hamakua, Hawaii, Dec.
28, 1902. Elevation about 3500 feet. Adult male.

Oreomyza maculata

Oahu

No 15.

'native name - Amakihi.

Color, green. Straight bill. Length 4.5 inches. Found on the island of Oahu, in the Waimai Mts. on Leilehua Ranch, in Haleawan gulch, at base of Kaala, May 17, 1909. Elevation about 3400 feet. Food, wood worms and bugs. Female.

No. 16. Oreomyza maculata

Oahu

Native name - Amakihi

Color, green. Length, 4.375 inches. Found on Leilehua Ranch, Waianae Mountains, at base of Kaala, Mar. 31, 1903. Elevation 3400 feet. Female.

Oreomyza maculata

Oahu

No. 17

Native name - Anakehi

Color, green. Length 5.80 inches. Found on Leilehua Ranch, in Waianae mountains, at base of Kaala, April 3, 1903. Elevation 3400 feet. Female. Straight bill. Prepared by Dr. St. Miller and presented by him to C. E. B.

No. 18. Oreomyza maculata.

Oahu

Native name - Amakihi.

Color, green. Length 4 inches. Found on Leilehua Ranch, in the Waianae mountains at base of Haala, April 2, 1903. Elevation 3400 feet. Female.

Oreomyza maculata

Oahu

No 19

native name - Amakihi.

Color, green. Found on Leilehua Ranch, in Waianae mountains at base of Kaala April 2. 1903. Female. Elevation 3500 feet.

No. 20. Oreomyza maculata

Oahu

Native Name - Amakihi

Color, yellow on the under side and under part, and sides of head; dark olive green on back and wings. Length 4.85 inches. Found on Leilehua Ranch, in Waianae mountains at base of Haala, April 2, 1903. Adult male, in almost perfect plumage. Was in full song when shot. Elevation 3500 feet. Straight bill $\frac{1}{2}$ inch long.

Chlorodrepanis chloris. Oahu. No. 21.

Native name - amakihi

Color, yellow green. Length 4.5 inches. Found on
Kekaha Ranch, in the Waianae mountains, April 3.
1903. Male. Elevation 3400 feet. Curved bill

Oahu

No. 22. Chlorodrepanis chloris

Native name - Amakihi.

Color, pale yellow green. Length 4.375 inches.
Found on Lihue Ranch in the Waimea mountains
March 29, 1903. Male. Elevation 8250 feet. Curved bill.

Chlorodrepanis chloris

Oahu

No. 23

Native name - dmakihu

Color, light yellow green. Length 4.4 inches. Found
on Lihimua Ranch in the Waianae mountains, April 1.
1903. Curved bill. Male. Elevation 3300 ft.

Hawaii

No 24. Mimattore Sanguinea

Native Name - Apapane

Color, dark scarlet, white on the abdomen and black on the tail and wings. Length 5.25 inches. Found in Kukauan Field, Horner's Ranch, Hamakua, Hawaii. Date collected Dec. 24. 1902. Male. Slightly curved bill, black in color. Elevation 4000 feet.

Himatione Sanguinea

Oahu

No. 25.

Native Name - Apapane

Color, dark red and black. Found on Leilehua Ranch
in the Waianae mountains on the island of Oahu, March
31, 1903. Was in full song when shot. Female. Elevation
about 3500 feet.

No. 26. Amazilia Sanguinea Oahu
native name - Apapane.

Red, red and black. Found on Kihuna Ranch
in the Waianae Mountains, Oahu, March 29, 1903.
at the base of Haala. Elevation 3500 feet. Male.

Himatione Sanguinea

Oahu

No. 27

Native Name - Apapane

Color, red and black. Length 5.00 inches. Found on
ridge of Makile Valley, Oahu. Elevation about 2500 ft.
Collected March 14, 1903. Female.

No. 28. Himatione Sanguinea. Oahu
Native name - Apapane.

Color, red and black. Found on Leilehua Ranch
in the Waianae mountains, March 30, 1903. Male.
Feeding on Santolina bushes, after worms, etc.
Elevation 3200 ft.

Vestaria Coccinea

Oahu

No. 29.

Native name. Divi

Color, bright scarlet and black wings. Length 5.95 inches. long curved bill and of an orange color. Found on Kilehuia Ranch, in the Waianae mountains, April 3, 1903. Adult male. Found near the base of Maala, Elevation 3200 feet.

No. 30. Himatione coccinea

Oahu.

Native Name - Iwi.

Color, scarlet and black. Length 5.375 inches
Found on Lihlina Ranch in the Waianae mountains
near the base of Kaala, May 17. 1903. Curved bill.
Female. Elevation 3700 feet.

Oahu

No. 31.

No 32

Oahu

³Mycticorax mycticorax macrourus

Oahu

No. 33.

Native name - Auku kohili.

Length

No. 34. *Heterorhynchos Wilsoni*. Hawaii.
Native name - Muhupuu?

Color, bright yellow green, with dark olive green yellow wings. Curved bill, upper jaw much longer than the lower jaw. Found, below stone fence, Horner's Ranch Paauilo, Hamakua, Hawaii, on July 15, 1903. Adult male, and in perfect plumage. Testes enlarged, breeding. Elevation 7300 feet. Length 5.9 inches.

Loxioides bailloni

Hawaii

No. 35.

Native name - Palila.

Color, gray, with yellow head and neck, short thick parrot-like bill. Length 6.5 inches. Found above stone fence, Horner's Ranch Hamakua Hawaii, July 15, 1903. Adult male. Not breeding. Food, the buds and ends of branches of Mamane. Elevation 8,000 feet.

No 36. *dixoides bailloni*.

Hawaii

Native Name - Palila.

Color, gray, with yellow head and neck. Length 6.6 inches. Male. Found above stone fence about 8,000 feet elevation on Horner's Ranch, Hamakua Hawaii. July 15. 1903. In full song. Throat enlarged.

dorioidea bailloni.

Hawaii

No 3

Native Name - Palila

Color, gray with grayish yellow head and yellow neck on under side. length 6 inches. Found above the stone fence, 8000 feet elevation on Horner's Ranch Hamakua Hawaii, July 15, 1903. Female small ovaries. Food, the young buds and tender branches of the Manchine tree.

No. 38. *doxioides baillui*.

Hawaii

Native name - Palila.

Length 6. > inches. Adult male found at 8,000
feet elevation on Horner's Ranch Hamakua
Hawaii up in the mamane trees on July
15, 1903. Took the buds shoots and buds of
the mamane trees, etc.

Oreomyza mana

Hawaii

No. 39.

Native name -

Color, light grayish yellow green, length 4.25 inch.
Found at 7,500 feet elevation on Horner's Ranch,
Hamakua Hawaii. Female, not breeding. White
face. Food, wood worms, found on dead trees, etc.
chiefly wood borers.

No 40. *Oreomyza mana.*

Hawaii

Native name.

Color, light olive green. Length 4.25 inches. Found below stone fence about 7,500 feet elevation on Horner's Ranch Hamakua Hawaii, July 15, 1903. Male. Straight bill and with a white face. Food, wood worms, etc.

Oreomyza mana.

Hawaii

No 41

Color, pale olive green. Length 4.25 inches. Straight bill. Black face, may be a cross between the *Chlorodrepanis Virens* and the *Oreomyza mana*. The bill is black, and much darker than that of the *Oreomyza*. Found below stone fence, about 7,500 feet elevation on Horner's Ranch Hamakua, Hawaii, July 15, 1903. Female.

No. 42. *Oreomyza mana.* Hawaii.

Color, pale olive green. Length inches
White face. Found on Horner's Ranch at 7,000
foot elevation on July 22, 1903. Female, straight
bill.

Chlorodrepanis Virens.

Hawaii

No. 43.

Native name - Amakihi

Color, bright yellow green, length, 4.5 inches.
Found in tree fern woods
Now all gone.

Elevation about 2000 feet, on Horner's Ranch
Honolulu Hawaii, July 22. 03. Male. Curved
bill.

No. 44. *Chlorodrepanis Virens*

Hawaii.

Native Name.—Amakihi

Color, bright yellow green. curved bill. Length
4.75. Found just below stone fence, at 8,000 feet
elevation, on Horner's Ranch Hamakua Hawaii,
July 15 1903. In full song, adult male, and in
full plumage.

Chlorodrepanis Virens.

Hawaii

No. 45

Native name - Amakihi.

Note

Length 4.5 inches, Wing 2.6 inches, Tail 1.65 inches
Culmen .6.6 inches, Tarsus .9 inches. Toe .61 inches
Depth of ^{top} beak .23 inches. Distance from tip of bill to
the carpal joint of wing 1.5 inches.

Color dark olive greenish yellow on back and
head, on sides lighter and more whitish yellow.
Tail dark olive green. does dark or sooty.
Young male, found at 3700 foot elevation on
Horner's Ranch, in coffee field, on Aug. 10. 1903
Curved bill.

No. 46. *Dreissga*
lawaii.

Hawaii

Color, pale, dark olive green. Length 4.5. Found
on Morris Ranch, Hamakua, Hawaii at > 2000
foot elevation on July 22, 1903. Straight bill
male. black face = does dark, bill dark

Chlorodrepanis Virens. Hawaii No. 42
native name - Amakihi

Color, bright yellow green, curved bill. Length 4.6
inch. Found below stone fence at 7,500 foot elevation
on Horner's Ranch on July 15, 1903. Male.

No 48. *Oreomyza mana*

Hawaii.

Note

Length 4.40 inches, Wing 2.60 inches, Tail 1.66 inches
Tarsus .91 inches, Toe .62 inches, Culmen .53 inches
Depth of beak .22 inches, Distance from tip of beak
to the wing (carpal joint) 1.625? inches.

Color, dark olive green on crest and back, wings
darker and with some black, tail similar,
on under light, and more whitish, legs
dark, almost black, bill dark. Old male, Found
at > 500 foot elevation on Horner's Ranch, Hamo-
kua Hawaii in the Manana's on Aug. 18.
1903. Almost in full plumage.

dixonioides bailloni.

Hawaii

2049.

native name - Palila

Teala, gray with yellow head. Length 6.8 inches
Found in Maheaa field on Horner's Ranch at
6600 foot elevation on July 22, 1903. Female.

50 No. *Phaeornis obscura*.

Hawaii

Native Name - Oman

Length 7.4 inches, Wing 4.10 inches Tail 3.10 inches
Culmen .635 inches, Tarsus 1.45 inches, Toe .90 inches
Depth of beak .225 inches, Distance from tip of
beak to wing (carpal joint) 2.00 inches.

Color of beak blue black, width of same .40 inches.

Found at upper edge of coffee field at 3900
foot elevation on Horner's Ranch, Hamakua
Hawaii on Aug. 1903. Adult male. Color
,

Vestria Coccinea. Hawaii

No. 51.

Native Name - Iwi

Color, bright scarlet. Length 6 inches. Found at 4000 foot elevation, at upper edge of coffee field in the corn field on Horner's Ranch Hamakua Hawaii, July 24, 1903. Food, gum catfishes, etc; at this time of the year.

Male, possible a young one. long curved bill. Not breeding.

52. No. *Vestaria Coccinea*, Hawaii
Native Name. - Iwi

Color, yellow green with scarlet splashes on
the breast.

Length 5 > inches. Found
at lower end of Corn field at 4000 foot
elevation on Horner's Ranch Hamakua
Hawaii on July 24. 1903 Young female,
this year's hatched thimble. Curved bill.

Vestaria Coccinea. Hawaii No. 53.
Native name - Iwi

Color, dark yellow olive green, with black spots on back and neck, also sprinkled with scarlet feathers, black wings and tail length 5.8 inches Curved bill, Found in the N part of the lower end of Corn field Horner's Ranch at 4000 elevation on July 24, 1903 Young male, about 10 to 14 months old. Food, tent caterpillars, army worms, honey insects etc.

No 54 *Aimatione Sanguinea* Hawaii
Native name - Apapane.

No 55 ^{see next page}
Color.

Length 5 inches, curved bill. Found in N.W. part of the lower end of Cornfield, Horner's Ranch, Hamakua Hawaii at 4000 foot elevation on July 24 1903. Young male, about 10 to 14 months old.

#54 Color, blackish gray with feathers tipped with reddish brown on back, on breast grayish white, wings black, with brown tipped, tail black. Length 5.1 inch. Young female. Found in N.W. corner of the lower part of Cornfield at 4000 foot elevation on Horner's Ranch Hamakua Hawaii, on July 24, 1903. Exchanged with M. S. Miller. Aug. 15, 1903

Himatione Sanguinea. Hawaii

No. 53.

Native Name - Apapane

Color, blackish gray on the back, splashed with reddish brown spots; on breast greyish white, wings and tail black. Length 5 inches. Curved bill. Young male.

No 56. Phaethontidae lepturus

Hawaii

Bowman Birds

Sola, black and white. Length 24.6 inches.

Found near Kukaeau Mill Aug. 1. 1903.

Female. Webful. Belongs to the Sula bird family.
Elevation about 200 feet. Tail composed of
long white feathers with a black ribbon
in the center.

Phaethontidae lepturus

Hawaii

No. 57

Bowser birds.

Color, black and white. length 20.25 inches
Found near Kukauan Mill on Aug. 1. 1903
Female, ovaries enlarged, probable breeding,
some of the ovaries greatly enlarged than others.

Given to Olive R. Horner.

No 58. *Himatione sanguinea* Hawaii
Native name - Apapane

Length 5.30, Wing 2.90 inches, Tail 2.25 inches
Culmen .63 inches, Tarsus .99 inches, Toe .70
inches, Depth of bill or beak .22 inches, Distance
from tip of beak to wing (carpal joint) 1.53 inches.
Color of legs blue black, feet with reddish pale yellow
Found in Cornfield at 4000 foot elevation on
Morris Ranch, Moroakua Hawaii. Young
male. Food, worms etc.

Himatione sanguinea. Hawaii No 59

Native name - Apapane.

Length 4.75 inches, Wings 2.62 inches, Tail 1.90 inches
Culmen .60 inches, Tarsus .90 inches, Toe .67 inches
Depth of beak .19 inches. Distance from tip of beak
to wing (carpal joint) 1.375 inches.

No. 60. *Vestiaria coccinea*

Hawaii

Native Name - Iwi

Length 5.95 inches, Wings 3.10 inches, Tail 2.05 inches
Culmen 1.05 inches, Tarsus 1.05 inches, Toe .70 inches
Depth of beak .28 inches, Distance from tip of
beak to wing (carpal joint) 2.30 inches.

Color of bill yellow carmine. Found in
N.W part of lower end of Cornfield Home
Ranch Hamakua Hawaii, at 4000 foot ele-
vation on Aug. 10. 1903. Young male, shot
while feeding on caterpillars which eat the
leaves of the Ohia tree. Exchanged with
Mr. D. H. Miller, Aug. 16. 1903.

Chasiempis sandwichensis

Hawaii No. 61

Native name - Elipao

Length 6.2 inches, Wings 2.90 inches Tail 2.6 inches
Culmen 5.2 inches, Tarsus 1.10 inches, Toe .60 inches
Depth of beak .19 inches, Distance from tip of
beak to wing (carpal joint) 2.00 inches.
Color of legs slate. Found in #3 field at 3200 foot
elevation on Horner's Ranch, Hamakua Hawaii
on Aug. 10. 1903. Adult male, in full plumage,
though badly worn X

No. 62. *Mniotilla niso'ia*

Hawaii

Three specimens.

Length 4.40 inches, Wing 2.15 inches, Tail
1.52 inches, Tarsus .55 inches, Toe .62 inches
Depth of beak .33 inches, Culmen .45 inches
Distance from tip of beak to wing (capal joint) 1.25 in.
Found at Hukouau, at 5000 feet elevation.

Phaethon lepturus

Hawaii

No. 63

White Tailed Tropic Bird.

Length 22.25 inches, Wing 10.10 inches, Tail 11.75 inches
Tarsus .90 inches, Toe 1.50 inches, Culmen 1.90 ..
Depth of beak .75 inches. Distance from tip of
beak to wing (carpal joint) 5.20 inches.

Male. food small fish. Black and white, with
a salmon tinge. Found near Hukauau Mill
Hamakua Hawaii on Aug. 13. 1903

No. 64 *Chasiempis sandvicensis* Hawaii
native name. Elipao

Length 5.9 inches. Wing 2.75 inches. Tail 2.4 inches
Tarsus .95 inches, Toe .66 inches, Culmen .43 "
Depth of beak .18 inches, Distance from tip of
beak to wing (carpal joint) 1.75 inches.

Found in #3 field about 3000 foot elevation
on Horner's Ranch Hamakua Hawaii on
Aug. 16, 1903 I think it is a young bird.
Female. Color: X

Heterorhynchos wilsoni.

Hawaii

7065

Length 5.90 inches, Wing 3.20 inches, Tail 1.40 inches
Tarsus 1.03 inches, Toe .82 inches, Culmen .95 inches
Depth of beak .30 inches, Distance from tip of beak
to the wing (carpal joint) 2.01? inches, Wing
toe .79 inches, Wing falls short of tail by .69 inches.
down mandible .65 inches. Color: on throat ^{as} golden
yellow ^{which} gradually changes to yellow olive green on
sides of abdomen, under color of feathers blackish
rust yellow brown fading into green yellow
on back, wings black brown tinged with olive green
tail similar, under tail coverts light yellow.
Feet slate dark blue, beak blue black; under side of feet
yellowish white. Doves dark, almost black. Adult
male, and in full plumage. Was in full song
when shot. Found on Horner's Ranch at > 500 foot
elevation on Aug. 18. 1903 up in the Mānana's above
the Waimea road.

No. 66 *Oreomyza mana*

Hawaii

Length 4.52 inches, Wing 2.74 inches, Tail 1.69 inches
Tarsus .84 inches, Toe .70 inches, Culmen .53 "
Depth of beak .21 inches, Distance from tip of beak
to the wing (carpal joint) 1.25? inches.

Adult male, found on Horner's Ranch at 7,600
foot elevation on Aug. 18, 1903. Food, worms and
eggs of moths, etc. dive up in the mannae
trees. Color.

Oreomyza mana

Hawaii

No. 6

length 4.60 inches, Wings 2.73 inches, Tail 1.68 inches
Tarsus .85? inches, Toe .625 inches, Culmen .55 inches
Depth of beak .20 inches, Distance from tip of beak
to the wing (carpal joint) 1.58? inches, Adult
female, found at 5,600 foot elevation on Horner's
Ranch Hamakua Hawaii on Aug. 18.1903

No. 68 *Oreomyza mana* Hawaii

Length 4.51 inches, Wing 2.60 inches, Tail 1.59 inches
Tarsus .90 inches, Toe .69 inches, Culmen .56 "
Depth of beak .22 inches, Distance from tip of beak
to the wing (carpal joint) 1.50? inches.

Female. Found at 7,500 foot elevation on Horner's
Ranch on Aug. 18. 1903 up among the mannae's

doxops coccinea

Hawaii

2069

Native name - Akipá

Length 4.40 inches, Wing 2.41 inches, Tail 1.80 inches
Tarsus .84 inches, Toe .65 inches, Culmen .42 inches
Depth of beak .19 inches, Distance from tip of beak
to the wing (carpal joint) 1.325? inches. Adult
male, just moulting, so is not in full plumage.
Found above 7,500 feet elevation, and west by north
of Pokéhi on Horne's Ranch, Hamakua Hawaii on Aug.
23, 1903. Feeding in the mamane tree.

Sunday afternoon, about 2.30 P.M.
at the edge of the sand field

W-70 *Oreomyza mana* Hawaii

length 4.62 inches, wing 2.75 inches, tail ^{inches}
Tarsus ^{inches}, toe ^{inches}, Culmen .50 ..
Depth of beak ^{inches}. Distance from tip
of beak to the wing (carpal joint) ^{inches}
Female, found at 7,500 foot elevation on Horner's
Ranch Hamakua Hawaii in the mamane
trees on Aug. 23. 1903

Chlorodrepanis virens

Hawaii

No. 22

Native name - Amakihi

Length 4.45 inches, Wing 2.65 inches, Tail 1.67 inches
Tarsus .95 inches, Toe .65 inches, Culmen .57 inches
Depth of beak .21 inches. Distance from tip of beak
to the wing (carpal joint) 1.50? inches ad. female
but just moulting now. Found at > 800 foot elevation
on Horner's Ranch Hamakua Hawaii up among
the mamane trees on Aug. 23. 1903.

No. 72 *Heterorhynchus wilsoni*

Hawaii

Length 5.85 inches, Wing 3.20 inches, Tail 1.20 inches
Tarsus .95 inches, Toe .89 inches, Culmen 1.02 inches
Depth of beak .28 inches. Distance from tip of
beak to the wing (capital joint) 2.20? inches.
Mild Toe, .90 inches, down mandible .70 inches
Adult male, found at 5,500 foot elevation
of Horner's Ranch Hamakua Hawaii up
in the Koas below Waimea road, on Aug
26. 1903. Food, worms etc. Testicles enlarged.

dixoides bailloni,

Hawaii

No. 23

Native name Palila

Length 6.90 inches, Wing 3.65 inches, Tail 2.61 in.
Tarsus 1.00 inches, Toe .90 inches, Culmen .50 inches
Depth of beak .40 inches, [Distance from tip of
beak to the wing (carpal joint) — inches.
(not used)] Distance from tip of wing to tip
of tail about 1.50 inches. Adult female, found
at > 800 feet elevation up among the mamane
trees on Horner's Ranch, Hamakua Hawaii
on Aug. 26. 1903. Moulting

No. 74 *Uromyza* *mama*

Hawaii

Length 4.88 inches, Wing 2.72 inches, Tail 1.82 inches
Tarsus .81 inches, Toe .68 inches, Culmen .50 inches
Depth of beak .22 inches, [Distance from tip
of beak to the wing (coupal joint) — inches
(not used)]. Distance from tip of wing to tip
of tail about 1.05 inches. Adult female found
at > 500 foot elevation on Horner's Ranch
Hamakua Hawaii up among the
mamane trees on Aug. 26. 1963.

Oreomyza mana

Hawaii May

length 4.58 inches, Wing 2.6 inches Tail 1.73 inches
Tarsus .85 inches, Toe .70 inches, Culmen .57 inches
Depth of beak .22 inches [Distance from tip of
beak to the wing (carpal joint) — inches.
(not used)] Distance from tip of wing to tip of
tail about .82 inches. Female.

No. 76. *Oreomyza mania*

Hawaii

length 4.6 inches, Wing 2.65 inches, Tail 1.62 inches
Tarsus .72 inches, Toe .77 inches, Culmen .645 inches,
Depth of beak .205 inches. Distance from tip of wings
to tip of tail about .80 inches. Adult male
found at 7,500 foot elevation on Morris's
Ranch on Aug. 26, 1903.

Lehasiempis sandvicensis Hawaii

No. 22

Native name - Edipao.

length 6.20 inches, Wing 2.90 inches Tail 2.65 inches
Tarsus 1.00 inches, Toe .67 inches, Culmen .51 inches
Depth of beak .18 inches, Distance from tip of wing
to tip of tail, about 1.75 inches. ♂ male, found
in lower part of cornfield at 4,100 foot elevation
on Horner Ranch, Hamakua Hawaii Aug. 30. 1903. Is a new species or a young
bird. Male

Gift at Museum on Oct. 12, 1903

No 78 *Phasempsis sandvicensis* Hawaii

Native name - Elipao.

Length 5.60 inches, Wings 2.60 inches, Tail 2.84 inches
Tarsus .90 inches, Toe .60 inches, Culmen .52 "
Depth of beak .18 inches, Distance from tip of
wing to the tip of tail about 1.25 inches.

Female, found in lower part of comfield
at 4,100 foot elevation on Horner's Ranch,
Honolulu Hawaii, on Aug. 30. 1903
Is a new species or a young bird.

Left at museum on Oct 12 03

Chasempis sandvicensis.

Hawaii

No. 29

Native name - Elepaio.

Length 6.40 inches, Wing 3.00 inches, Tail 2.80 inches, Tarsus .99 inch, Toe .75 inch, Culmen .52 inch, Depth of beak .195 inch, Distance from tip of wing to the tip of the tail about 7.50 inches. Adult male, found in lower part of cornfield at 4,100 foot elevation on Horner's Ranch, Hamakua Hawaii on Aug. 30.1903 X

Hawaiian Islands
Hawaii

No. 80 Phalaridea. Dr. J. G. Keulemans.

Plover.

Length 10.05 inches, Wing 7.00, Tail 2.60, Tarsus
1.80, Toe 1.43, Culmen .99, Depth of beak .45 in.

Distance from tip of wing to tip of tail
about $\frac{1}{2}$ inches, the tail falls short of the
wing tips by that amount. Gmelin
dict. 2, 1903 on Horaeis Ranch.

doxioides bailloni

Hawaii

Nov. 1

Native name - Palila

Length 6.50, Wing 3.55, Tail 2.45, Tarsus 1.05,
Toe .83, Culmen .51, Depth of beak .40, Distance
from tip of wing to tip of tail about 1.50 inches.
Male, moulting; Found at 8,000 feet elevation
on Horner's Ranch, just below the stone fence;
Hannakua, Hawaii on Sept. 2, 1903. Feeding
off of the mamane blossoms. Mamane's in
flower.

No. 82 *Vestiania coccinea*. Hawaii
native name - Iiwi

Length 5.45, Wing 2.80, Tail 1.95, Tarsus .95,
Toe .70, Culmen 1.00, Depth of beak .28,
Distance from tip of wing to the tip of the
tail, about .875 inches. Young female,
found up among the mamane's on both
sides of the stone fence and in the sand,
elevation about 8,000 feet, Horner's Ranch
Hamakua Hawaii, on Sept. 2. 1903

Vestinia coccinea.

Hawaii

No. 83

Native name - Iiwi.

Length 6.05, Wing 3.20, Tail 2.08, Tarsus 1.2, Toe .75, Culmen 1.125 Depth of beak .30, Distance from tip of wing to tip of tail, about .875 inches.

Young male, found at 8,000 feet elevation
among the mamane trees and on
both sides of the stone fence, on Horne's Ranch
Hamakua Hawaii, on Sept. 2, 1903.

No. 34

Vestaria coccinea

Hawaii

Native name - Iwi.

Length 5.83, Wing, 3.20; Tail 2.125, Tarsus 1.00,
Tet. .74, Culmen 1.10, Depth of beak .28, Distance
from tip of wing to tip of tail, about $\frac{7}{8}$ inches.

Female, found up among the mamane
trees on both sides of the stone fence, at 8,000 foot
elevation in the sand fields near Pokéhi, on
Horner's Ranch, Hamakua Hawaii on Sept
- 2, 1903.

Vestiaria coccinea.

Hawaii

2095

Native name - Iwi.

Length 5.80, Wing 3.05, Tail 1.95, Tarsus 1.00, Toe .28
Culmen 1.04, Depth of beak .25, Distance from
tip of the wing to tip of tail, about .98 inches
Male, moulted. Found at 8,000 feet elevation
on both sides of stone fence, on Horner's
Ranch, Hamakua Hawaii on Sept. 2. 1903

No. 86 *Vestiaria coccinea*

Hawaii

Native name - Iwi

Length 6.10, Wing 3.10, Tail 2.20, Tarsus 1.00
Tars. .52, Culmen 1.09, Depth of beak .26, Dis-
tance from tip of wing to tip of tail about 1.10
inches. Male, moulting. Found on Horner
Ranch, on both sides of stone fence, 8,000 feet
elevation on Sept. 2, 1903.

Chlorodrepanis virens.

Hawaii

300-87

Native name - Amakihi

Length 4.41, Wing 2.625, Tail 1.63, Tarsus .84, Toe .59, Culmen .54, Depth of beak .19, Distance from tip of wing to tip of tail, about, 7.5 inches
Male ^{probably} a young bird. Found on Horner's Ranch at 8,000 feet elevation on Sept. 2, 1903.

No. 88 *Chlorodrepanis virens*. Hawaii

Native name - Amakihi.

Length 4.42, Wing 3.60; Tail 1.50, Tarsus .90, Toe .63, Culmen .55, Depth of beak .20, Distance from tip of wing to tip of tail, about .70 inches.
Female. Found on Horner's Ranch at 8,000 feet elevation on Sept. 2, 1903. May be a young bird.

Chlorodrepanis virens.

Hawaii

21089

Native name - Amakihi.

Length 4.52, Wing 3.62, Tail 1.62, Tarsus .90 Toe .69, Culmen .58, Depth of beak .21, Distance from tip of wing to tip of tail, about .70 inches.

Male, may be a young bird. Found on Horrie's Ranch, Hamakua Hawaii, at 8,000 foot elevation on ~~Horrie's~~ Sept. 2, 1903.

No. 90 *Chlorodrepanis virens*. Hawaii

Native name - Amakihi.

Length 4.40, Wing 2.50, Tail 1.60, Tarsus .89, Toe .63, Culmen .53, Depth of beak .22, Distance from tip of wing to tip of tail, about .75 inches.

Female, Found at 8,000 feet elevation on Horner's Ranch, ad on Sept. 2, 1903.

Hemignathus obscurus, Hawaii No. 91

Native name - Akaloa

length 6.20, Wing 2.90, Tail 1.70, Tarsus .92, Toe .80
Culmen 1.45, Depth of beak .23, Distance from
tip of wing to tip of tail, about .70 inches.

Width of beak .23 inches. Upper culmen $\frac{2}{3}$ longer
than the lower mandible. Female, found
about half way through #3 field along road to
Morris Ranch house on Sept. 1903 among
the Ohia. Three birds have just made their
appearance within the last week. Sept. 21. 1903.
at about 3,250 foot elevation.

No. 92. *Hemignathus obscurus*. Hawaii

Native name - Akialoa.

Length 6.00, Wing 3.27, Tail 1.83, Tarsus .93, Toe .86
culmen 1.60, Depth of beak .26, Distance from
the tip of wings to the tip of tail, about .70 inches.
Width of beak .22 inches. Adult male
found on Horner's Ranch in #3 field
on Sept. 8. 1903 at 3,500 foot elevation.

Sent to Dr. H. Miller

Hemignathus obscurus. Hawaii No 93

Native name - Akialoa

Length 4.10, Wings 3.20, Tail 1.75, Tarsus 1.00, Toe .82
Culmen 1.625, Depth of beak .25, Distance from the
tip of the wings to the tip of the tail, about .52 inches.
Width of beak .24 inches. Adult male, mostly
Found on Horner's Ranch in #3 field at
about 3,600 feet elevation - on Sept. 8. 1903.

No. 94 *Chlorodrepanis virens*, Hawaii
Native name - Amakihi.

Length 4.60, Wing 2.70, Tail 1.71, Tarsus .96, Toe .68,
Culmen .53, Depth of beak .195, Distance from
the tip of the wings to tip of tail, about .75 inches
Width of beak $\frac{1}{100}$ inches. Male, found
in #³ field on Horner's Ranch, Hamakua
Hawaii, on Sept. 8, 1903.

Chlorodrepanis virens,

Hawaii.

No. 96

Native Name - Amakihi

Length 4.52, Wing 2.50, Tail 1.47, Tarsus .89, Toe .61
Gulmen .53 , Depth of beak .21 , Distance from the
tip of the wings to the tip of the tail, about .75 inches
Width of beak .215 inches Adult female found
on Horner's Ranch in #3 field on Sept. 8, 1903.

No. 96 *Chasiempis sandvicensis*. Hawaii
Native name - Elepaio.

Length 5.55, Wing 2.80, Tail 2.375, Tarsus .98, Toe .68
Tulmen .56, Depth of beak .18, Distance from the
tip of the wings to the tip of the tail, about 1.40 inches
Male, found in #3 field on Horner's Ranch
Hawaii on Sept. 8, 1903. X

Chasiempis sandvicensis. Hawaii 2093

Native name, Elepaio.

Length 5.80, Wing 2.70, Tail 2.55, Tarsus .95, Toe .63,
culmen .54, Depth of beak .17, Distance from
tip of the wings to the tip of the tail, about 1.50 inches.
Female, found in #3 field on Horner's Ranch
Hamakua Hawaii, on Sept. 8, 1903. x

No. 98 Phaeornis obscura. Hawaii

Native name - Oman

Length 7.20, Wing 4.05, Tail 3.03, Tarsus 1.45, Toe 1.05
Tibium .68, Depth of beak .22, Distance from the
tips of the wings to the tip of the tail, about 1.65 inches.
Width of beak .36 inches. Adult male, found
in # field Horner's Ranch Hamakua
Hawaii on Sept. 8. 1903.

Length , Wing , Tail , Tarsus , Toe
between , Depth of beak , Distance from tip
of wings to the tip of the tail, about inches.

Nov. 1888

Length , Wing , Tail , Tarsus , Toe
culmen , Depth of beak , Distance from
tip of wing to the tip of the tail, about inches.

Length , Wing , Tail , Tarsus , Toe ,
culmen , Depth of beak , Distance from the
tips of the wings to the tip of the tail, about inches.

No-102

length , Wing , tail , Tarsus , Toe ,
culmen , Depth of beak , Distance from
the tips of wings to the tip of tail, about inches.

Length, Wing, Tail, Tarsus, Toe
Culmen, Depth of beak, Distance from
the tips of wings to tip of tail, about . . . inches.
Width of beak . . .

No 104

length , Wing , Tail , Tarsus , Toe
culmen , Width of beak , Depth of
beak , Distance from wing tips to tip of tail
about in. ~~inches~~.

length , Wing , Tail , Tarsus
Toe , Culmen , Width of beak , Depth
of beak , Distance from wing tips to tip of tail also
included.

No. 134.

W. J. Wirt.
Lyndonville
Orleans Co.

No. 139

N. Y.
U. S. A.

Prof. Dyer & Muller,

Dec. 25, 1903

Dear Sir

I saw your name
in the "Condor" and I will to ask if you
would exchange some Hawaiian Bird skins
for American Bird skins or sets of eggs. I
would like to get one or two of each of the smaller
species up to size of small Hawk, etc. If you
care to exchange, send a list with price fm
bird and I will send list of what I can
offer, and if you do not care to exchange will
you please hand this letter to some
collector. I wrote to the Bishop Museum
but they were not in want of any
American skins.

Very truly yours
W. J. Wirt.

Orleans Co.

Lyndonville N. Y.

List of Birds Sent to Mr. Miller

- No. 60. Young male, *Vestriaia coccinea*, Aug 15. 03
" 54. " female. *Himatione sanguinea*.
" 92. Adult male *Hemignathus O.*.

